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(Original Signature of Member)

107TH CONGRESS
1ST SESSION

H. R. _____

IN THE HOUSE OF REPRESENTATIVES

Mr. MARKEY introduced the following bill; which was referred to the
Committee on _____

A BILL

To amend the Atomic Energy Act of 1954 and the Energy
Reorganization Act of 1974 to strengthen security at
sensitive nuclear facilities.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Nuclear Security Act
5 of 2001”.



1 **SEC. 2. DEFINITIONS.**

2 Section 11 of the Atomic Energy Act of 1954 (42
3 U.S.C. 2014) is amended—

4 (1) by redesignating subsection jj. as subsection
5 ii.; and

6 (2) by adding at the end the following:

7 “jj. DESIGN BASIS THREAT.—The term ‘design basis
8 threat’ means the design basis threat established by the
9 Commission under section 73.1 of title 10, Code of Fed-
10 eral Regulations (or any successor regulation developed
11 under section 170C).

12 “kk. SENSITIVE NUCLEAR FACILITY.—The term
13 ‘sensitive nuclear facility’ means—

14 “(1) a commercial nuclear power plant and as-
15 sociated spent fuel storage facility;

16 “(2) a decommissioned nuclear power plant and
17 associated spent fuel storage facility;

18 “(3) a category I fuel cycle facility;

19 “(4) a gaseous diffusion plant; and

20 “(5) any other facility licensed by the Commis-
21 sion, or used in the conduct of an activity licensed
22 by the Commission, that the Commission determines
23 should be treated as a sensitive nuclear facility
24 under section 170C.”.



1 **SEC. 3. NUCLEAR SECURITY.**

2 (a) IN GENERAL.—Chapter 14 of the Atomic Energy
3 Act of 1954 (42 U.S.C. 2201 et seq.) is amended by add-
4 ing at the end the following:

5 **“SEC. 170C. PROTECTION OF SENSITIVE NUCLEAR FACILI-**
6 **TIES AGAINST THE DESIGN BASIS THREAT.**

7 “(a) DEFINITIONS.—In this section:

8 “(1) NUCLEAR SECURITY FORCE.—The term
9 ‘nuclear security force’ means the nuclear security
10 force established under subsection (b)(1).

11 “(2) FUND.—The term ‘Fund’ means the Nu-
12 clear Security Fund established under subsection (f).

13 “(3) QUALIFICATION STANDARD.—The term
14 ‘qualification standard’ means a qualification stand-
15 ard established under subsection (e)(2)(A).

16 “(4) SECURITY PLAN.—The term ‘security plan’
17 means a security plan developed under subsection
18 (b)(2).

19 “(b) NUCLEAR SECURITY.—The Commission shall—

20 “(1) establish a nuclear security force, the
21 members of which shall be employees of the Com-
22 mission, to provide for the security of all sensitive
23 nuclear facilities against the design basis threat; and

24 “(2) develop and implement a security plan for
25 each sensitive nuclear facility to ensure the security



1 of all sensitive nuclear facilities against the design
2 basis threat.

3 “(c) DESIGN BASIS THREAT.—

4 “(1) IN GENERAL.—Not later than 90 days
5 after the date of enactment of this section, and at
6 least once every 3 years thereafter, the Commission,
7 in consultation with the Assistant to the President
8 for Homeland Security, the Attorney General, the
9 Secretary of Defense, and other Federal, State, and
10 local agencies, as appropriate, shall revise the design
11 basis threat to include—

12 “(A) threats equivalent to—

13 “(i) the events of September 11,
14 2001;

15 “(ii) a physical, cyber, biochemical, or
16 other terrorist threat;

17 “(iii) an attack on a facility by mul-
18 tiple coordinated teams of a large number
19 of individuals;

20 “(iv) assistance in an attack from sev-
21 eral persons employed at the facility;

22 “(v) a suicide attack;

23 “(vi) a water-based or air-based
24 threat;



1 “(vii) the use of explosive devices of
2 considerable size and other modern weap-
3 onry;

4 “(viii) an attack by persons with a so-
5 phisticated knowledge of the operations of
6 a sensitive nuclear facility; and

7 “(ix) fire, especially a fire of long du-
8 ration; and

9 “(B) any other threat that the Commission
10 determines should be included as an element of
11 the design basis threat.

12 “(2) REPORTS.—The Commission shall submit
13 to Congress a report on each revision made under
14 paragraph (1).

15 “(d) SECURITY PLANS.—

16 “(1) IN GENERAL.—Not later than 180 days
17 after the date of enactment of this section, the Com-
18 mission shall develop a security plan for each sen-
19 sitive nuclear facility to ensure the protection of
20 each sensitive nuclear facility against the design
21 basis threat.

22 “(2) ELEMENTS OF THE PLAN.—A security
23 plan shall prescribe—

24 “(A) the deployment of the nuclear secu-
25 rity force, including—



1 “(i) numbers of the members of the
2 nuclear security force at each sensitive nu-
3 clear facility;

4 “(ii) tactics of the members of the nu-
5 clear security force at each sensitive nu-
6 clear facility; and

7 “(iii) capabilities of the members of
8 the nuclear security force at each sensitive
9 nuclear facility;

10 “(B) other protective measures,
11 including—

12 “(i) designs of critical control systems
13 at each sensitive nuclear facility;

14 “(ii) restricted personnel access to
15 each sensitive nuclear facility;

16 “(iii) perimeter site security, internal
17 site security, and fire protection barriers;

18 “(iv) increases in protection for spent
19 fuel storage areas;

20 “(v) placement of spent fuel in dry
21 cask storage; and

22 “(vi) background security checks for
23 employees and prospective employees; and

24 “(C) a schedule for completing the require-
25 ments of the security plan not later than 18



1 months after the date of enactment of this sec-
2 tion.

3 “(3) ADDITIONAL REQUIREMENTS.—A holder
4 of a license for a sensitive nuclear facility under sec-
5 tion 103 or 104 or the State or local government in
6 which a sensitive nuclear facility is located may peti-
7 tion the Commission for additional requirements in
8 the security plan for the sensitive nuclear facility.

9 “(4) IMPLEMENTATION OF SECURITY PLAN.—
10 Not later than 270 days after the date of enactment
11 of this section, the Commission, in consultation with
12 a holder of a license for a sensitive nuclear facility
13 under section 103 or 104, shall, by direct action of
14 the Commission or by order requiring action by the
15 licensee, implement the security plan for the sen-
16 sitive nuclear facility in accordance with the schedule
17 under paragraph (2)(C).

18 “(5) SUFFICIENCY OF SECURITY PLAN.—If at
19 any time the Commission determines that the imple-
20 mentation of the requirements of the security plan
21 for a sensitive nuclear facility is insufficient to en-
22 sure the security of the sensitive nuclear facility
23 against the design basis threat, the Commission
24 shall immediately submit to Congress and the Presi-
25 dent a classified report that—



1 “(A) identifies the vulnerability of the sen-
2 sitive nuclear facility; and

3 “(B) recommends actions by Federal,
4 State, or local agencies to eliminate the vulner-
5 ability.

6 “(e) NUCLEAR SECURITY FORCE.—

7 “(1) IN GENERAL.—Not later than 90 days
8 after the date of the enactment of this section, the
9 Commission, in consultation with other Federal
10 agencies, as appropriate, shall establish a program
11 for the hiring and training of the nuclear security
12 force.

13 “(2) HIRING.—

14 “(A) QUALIFICATION STANDARDS.—Not
15 later than 30 days after the date of enactment
16 of this section, the Commission shall establish
17 qualification standards that individuals shall be
18 required to meet to be hired by the Commission
19 as members of the nuclear security force.

20 “(B) EXAMINATION.—The Commission
21 shall develop and administer a nuclear security
22 force personnel examination for use in deter-
23 mining the qualification of individuals seeking
24 employment as members of the nuclear security
25 force.



1 “(C) CRIMINAL AND SECURITY BACK-
2 GROUND CHECKS.—The Commission shall re-
3 quire that an individual to be hired as a mem-
4 ber of the nuclear security force undergo a
5 criminal and security background check.

6 “(D) DISQUALIFICATION OF INDIVIDUALS
7 WHO PRESENT NATIONAL SECURITY RISKS.—
8 The Commission, in consultation with the heads
9 of other Federal agencies, as appropriate, shall
10 establish procedures, in addition to any back-
11 ground check conducted under subparagraph
12 (B), to ensure that no individual who presents
13 a threat to national security is employed as a
14 member of the nuclear security force.

15 “(3) ANNUAL PROFICIENCY REVIEW.—

16 “(A) IN GENERAL.—The Commission shall
17 provide that an annual evaluation of each mem-
18 ber of the nuclear security force is conducted
19 and documented.

20 “(B) REQUIREMENTS FOR CONTINU-
21 ATION.—An individual employed as a member
22 of the nuclear security force may not continue
23 to be employed in that capacity unless the eval-
24 uation under subparagraph (A) demonstrates
25 that the individual—



1 “(i) continues to meet all qualification
2 standards;

3 “(ii) has a satisfactory record of per-
4 formance and attention to duty; and

5 “(iii) has the knowledge and skills
6 necessary to vigilantly and effectively pro-
7 vide for the security of a sensitive nuclear
8 facility against the design basis threat.

9 “(4) TRAINING.—

10 “(A) IN GENERAL.—The Commission shall
11 provide for the training of each member of the
12 nuclear security force to ensure each member
13 has the knowledge and skills necessary to pro-
14 vide for the security of a sensitive nuclear facil-
15 ity against the design basis threat.

16 “(B) TRAINING PLAN.—Not later than 60
17 days after the date of enactment of this section,
18 the Commission shall develop a plan for the
19 training of members of the nuclear security
20 force.

21 “(C) USE OF OTHER AGENCIES.—The
22 Commission may enter into a memorandum of
23 understanding or other arrangement with any
24 other Federal agency with appropriate law en-
25 forcement responsibilities, to provide personnel,



1 resources, or other forms of assistance in the
2 training of members of the nuclear security
3 force.

4 “(f) NUCLEAR SECURITY FUND.—

5 “(1) ESTABLISHMENT.—There is established in
6 the Treasury of the United States a fund to be
7 known as the ‘Nuclear Security Fund’, which shall
8 be used by the Commission to administer programs
9 under this section to provide for the security of sen-
10 sitive nuclear facilities.

11 “(2) DEPOSITS IN THE FUND.—The Commis-
12 sion shall deposit in the Fund—

13 “(A) the amount of fees collected under
14 paragraph (5); and

15 “(B) amounts appropriated under sub-
16 section (g).

17 “(3) INVESTMENT OF AMOUNTS.—

18 “(A) IN GENERAL.—The Secretary of the
19 Treasury shall invest such portion of the Fund
20 as is not, in the judgment of the Secretary of
21 the Treasury, required to meet current with-
22 drawals. Investments may be made only in in-
23 terest-bearing obligations of the United States.



1 “(B) ACQUISITION OF OBLIGATIONS.—For
2 the purpose of investments under subparagraph
3 (A), obligations may be acquired—

4 “(i) on original issue at the issue
5 price; or

6 “(ii) by purchase of outstanding obli-
7 gations at the market price.

8 “(C) SALE OF OBLIGATIONS.—Any obliga-
9 tion acquired by the Fund may be sold by the
10 Secretary of the Treasury at the market price.

11 “(D) CREDITS TO FUND.—The interest on,
12 and the proceeds from the sale or redemption
13 of, any obligations held in the Fund shall be
14 credited to and form a part of the Fund.

15 “(4) USE OF AMOUNTS IN THE FUND.—The
16 Commission shall use amounts in the Fund to pay
17 the costs of—

18 “(A) salaries, training, and other expenses
19 of the nuclear security force; and

20 “(B) developing and implementing security
21 plans.

22 “(5) FEE.—To ensure that adequate amounts
23 are available to provide assistance under paragraph
24 (4), the Commission shall assess licensees a fee in
25 an amount determined by the Commission.



1 “(g) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated such sums as are nec-
3 essary to carry out this section.”.

4 (b) IMPLEMENTATION.—The Commission shall com-
5 plete the full implementation of the amendment made by
6 subsection (a) as soon as practicable after the date of en-
7 actment of this Act, but in no event later than 270 days
8 after the date of enactment of this Act.

9 (c) TECHNICAL AND CONFORMING AMENDMENT.—
10 The table of contents for chapter 14 of the Atomic Energy
11 Act of 1954 (42 U.S.C. prec. 2011) is amended by adding
12 at the end the following:

“Sec. 170B. Uranium supply.

“Sec. 170C. Protection of sensitive nuclear facilities against the design basis
threat.”.

13 **SEC. 4. OPERATION SAFEGUARDS AND RESPONSE UNIT.**

14 Section 204 of the Energy Reorganization Act of
15 1974 (42 U.S.C. 5844) is amended by adding at the end
16 the following:

17 “(d) OPERATION SAFEGUARDS AND RESPONSE
18 UNIT.—

19 “(1) DEFINITIONS.—In this subsection:

20 “(A) ASSISTANT DIRECTOR.—The term
21 ‘Assistant Director’ means the Assistant Direc-
22 tor for Operation Safeguards and Response.

23 “(B) DESIGN BASIS THREAT.—The term
24 ‘design basis threat’ has the meaning given the



1 term in section 11 of the Atomic Energy Act of
2 1954 (42 U.S.C. 2014).

3 “(C) SENSITIVE NUCLEAR FACILITY.—The
4 term ‘sensitive nuclear facility’ has the meaning
5 given the term in section 11 of the Atomic En-
6 ergy Act of 1954 (42 U.S.C. 2014).

7 “(D) UNIT.—The term ‘Unit’ means the
8 Operation Safeguards and Response Unit estab-
9 lished under paragraph (2)(A).

10 “(2) ESTABLISHMENT OF UNIT.—

11 “(A) IN GENERAL.—There is established
12 within the Office of Nuclear Material Safety
13 and Safeguards the Operation Safeguards and
14 Response Unit.

15 “(B) HEAD OF UNIT.—The Unit shall be
16 headed by the Assistant Director.

17 “(C) DUTIES.—The Assistant Director
18 shall—

19 “(i) establish a program for the con-
20 duct of operation safeguards and response
21 evaluations under paragraph (3); and

22 “(ii) establish a program for the con-
23 duct of emergency response exercises under
24 paragraph (4).



1 “(D) MOCK TERRORIST TEAM.—The per-
2 sonnel of the Unit shall include a Mock Ter-
3 rorist Team comprised of—

4 “(i) not fewer than 20 individuals
5 with advanced knowledge of special weap-
6 ons and tactics comparable to special oper-
7 ations forces of the Armed Forces;

8 “(ii) at least 1 nuclear engineer;

9 “(iii) for each evaluation at a sensitive
10 nuclear facility under paragraph (3), at
11 least 1 individual with knowledge of the
12 operations of the sensitive nuclear facility
13 who is capable of actively disrupting the
14 normal operations of the sensitive nuclear
15 facility; and

16 “(iv) any other individual that the As-
17 sistant Director determines should be a
18 member of the Mock Terrorist Team.

19 “(3) OPERATION SAFEGUARDS AND RESPONSE
20 EVALUATIONS.—

21 “(A) IN GENERAL.—Not later than 1 year
22 after the date of enactment of this subsection,
23 the Assistant Director shall establish an oper-
24 ation safeguards and response evaluation pro-
25 gram to assess the ability of each sensitive nu-



1 clear facility to defend against the design basis
2 threat.

3 “(B) FREQUENCY OF EVALUATIONS.—Not
4 less often than once every 2 years, the Assistant
5 Director shall conduct and document operation
6 safeguards and response evaluations at each
7 sensitive nuclear facility to assess the ability of
8 the members of the nuclear security force at the
9 sensitive nuclear facility to defend against the
10 design basis threat.

11 “(C) ACTIVITIES.—The evaluation shall in-
12 clude 2 or more force-on-force exercises by the
13 Mock Terrorist Team against the sensitive nu-
14 clear facility that simulate air, water, and land
15 assaults (as appropriate).

16 “(D) CRITERIA.—The Assistant Director
17 shall establish criteria for judging the success
18 of the evaluations.

19 “(E) CORRECTIVE ACTION.—If a sensitive
20 nuclear facility fails to complete successfully an
21 operation safeguards and response evaluation,
22 the Commission shall require additional oper-
23 ation safeguards and response evaluations not
24 less often than once every 6 months until the
25 sensitive nuclear facility successfully completes



1 an operation safeguards and response evalua-
2 tion.

3 “(F) REPORTS.—Not less often than once
4 every year, the Commission shall submit to the
5 Congress and the President a report that de-
6 scribes the results of each operation safeguards
7 and response evaluation under this paragraph
8 for the previous year.

9 “(4) EMERGENCY RESPONSE EXERCISES.—

10 “(A) IN GENERAL.—Not later than 1 year
11 after the date of enactment of this subsection,
12 the Assistant Director, in consultation with the
13 Assistant to the President for Homeland Secu-
14 rity, the Director of the Federal Emergency
15 Management Agency, the Attorney General, and
16 other Federal, State, and local agencies, as ap-
17 propriate, shall establish an emergency response
18 program to evaluate the ability of Federal,
19 State, and local emergency response personnel
20 within a 50-mile radius of a sensitive nuclear
21 facility to respond to a radiological emergency
22 at the sensitive nuclear facility.

23 “(B) FREQUENCY.—Not less often than
24 once every 3 years, the Assistant Director shall
25 conduct emergency response exercises to evalu-



1 ate the ability of Federal, State, and local
2 emergency response personnel within a 50-mile
3 radius of a sensitive nuclear facility to respond
4 to a radiological emergency at the sensitive nu-
5 clear facility.

6 “(C) ACTIVITIES.—The response exercises
7 shall evaluate—

8 “(i) the response capabilities, response
9 times, and coordination and communica-
10 tion capabilities of the response personnel;

11 “(ii) the effectiveness and adequacy of
12 emergency response plans, including evacu-
13 ation plans; and

14 “(iii) the ability of response personnel
15 to distribute potassium iodide or other pro-
16 phylactic medicines in an expeditious man-
17 ner.

18 “(D) REVISION OF EMERGENCY RESPONSE
19 PLANS.—The Commission shall revise the emer-
20 gency response plan for a sensitive nuclear fa-
21 cility to correct for any deficiencies identified by
22 an evaluation under this paragraph.

23 “(E) REPORTS.—Not less often than once
24 every year, the Commission shall submit to



1 Congress and the President a report that
2 describes—

3 “(i) the results of each emergency re-
4 sponse exercise under this paragraph con-
5 ducted in the previous year; and

6 “(ii) each revision of an emergency re-
7 sponse plan made under subparagraph (D)
8 for the previous year.”.

9 **SEC. 5. POTASSIUM IODIDE.**

10 (a) AMENDMENT.—Chapter 19 of the Atomic Energy
11 Act of 1954 (42 U.S.C. 2015 et seq.) is amended by in-
12 serting after section 241 the following new section:

13 “SEC. 242. POTASSIUM IODIDE.—Not later than 6
14 months after the date of the enactment of this section,
15 the Commission shall—

16 “(1) ensure that stockpiles of potassium iodide
17 tablets sufficient to provide adequate protection to
18 the population have been established in individual
19 homes and at public facilities such as schools and
20 hospitals within 50 miles of a nuclear power plant;

21 “(2) ensure that stockpiles of potassium iodide
22 tablets sufficient to provide adequate protection to
23 the population have been established at public facili-
24 ties such as schools and hospitals within the area be-
25 tween 50 and 200 miles of a nuclear power plant;



1 “(3) establish a plan to provide for the utiliza-
2 tion of the stockpiles described in paragraphs (1)
3 and (2) by individuals located within 200 miles of a
4 nuclear power plant in the event of a release of
5 radionuclides, other than a release of amounts hav-
6 ing no significant public health consequences; and

7 “(4) transmit to the Congress a report—

8 “(A) on whether stockpiles have been es-
9 tablished as required by paragraphs (1) and
10 (2); and

11 “(B) on the utilization plan required under
12 paragraph (3).”.

13 (b) TABLE OF CONTENTS AMENDMENT.—The table
14 of contents of chapter 19 of the Atomic Energy Act of
15 1954 is amended by inserting after the item relating to
16 section 241 the following new item:

 “Sec. 242. Potassium iodide.”.

